

**DRAFT**

Statement on Blood Safety for Disease Prevention

Edward C. Green, PhD  
Senior Research Scientist  
Harvard Center for Population and Development Studies  
9 Bow Street  
Cambridge, MA 02138  
and  
Member, President's Advisory Council on HIV/AIDS

Before the

**COMMITTEE ON INTERNATIONAL RELATIONS  
SUBCOMMITTEE ON AFRICA, GLOBAL HUMAN RIGHTS, AND  
INTERNATIONAL OPERATIONS**

U.S. House of Representatives

June 27, 2006

Mr. Chairman, thank you for inviting me to participate in this important hearing on the issue of blood safety in Africa. I am a Senior Research Scientist at the Harvard Center for Population and Development Studies, which has the mission to promote cross-disciplinary research on critical issues of population, health and development that will advance the well-being of the global poor. For most of my professional career, I have not been an academic. I have worked in less developed countries as an applied behavioral science researcher and as designer and evaluator of public health programs, mostly under funding of the US Agency for International Development. I have worked extensively in Africa and other resource-poor parts of the world. I served as an in-country advisor to the ministries of health in both Mozambique (1994-5) and Swaziland (1981-83), and I serve on the advisory boards of several AIDS organizations, including the Presidential Advisory Council for HIV/AIDS (2003-), the Office of AIDS Research Advisory Council, National Institutes of Health (until 2006), and AIDS.org. Internet portal for AIDS information. I have worked in HIV/AIDS prevention since the mid-1980s, and I appreciate the attention that you are bringing to the issue of safe blood in prevention efforts.

It is difficult to believe that in populations with extraordinarily high HIV prevalence rates – as high as 35% or more in some African countries– policies, trained personnel and infrastructure are lacking or absent to ensure that blood collected and used for blood transfusions does not put the patient at risk of contracting the disease. I am aware of the limited resources that are available to address this overwhelming health crisis, and I am aware that it will take considerable time before numerous infrastructure inadequacies, health care worker shortage, and other long-term development challenges

inherent in a safe blood solution can be achieved. However, I would submit that there are means to address this crisis that could be undertaken immediately, that do not require significant resources, and that would have a measurable impact. Two such means to which I would like to draw your attention would require little more than a determination to put appropriate national policies into place and to implement a follow-up strategy to ensure their proper and continued implementation.

One is the importance of the screening and treatment of blood donors. Reports from the World Health Organization clearly demonstrate that donors who are unpaid volunteers and who donate regularly are the least likely to donate blood tainted with HIV and other life-threatening pathogens. The likely reason behind this phenomenon is that such donors are motivated purely by altruism and have no reason to hide their HIV status or other conditions that may affect blood safety. Paid donors and relatives of the patient, on the other hand, could have such motives for obvious reasons.

One often-overlooked factor in the recruitment and retention of voluntary blood donors is the treatment of donors within the medical system. Here in the United States, we take for granted that when we go to give blood, we will be greeted by a competent medical professional who has received adequate training for the proper taking of blood. We take for granted that the needle is sterile and that being in a health facility will not threaten our own health. And we are relatively certain that if something goes wrong as a result of the blood donation, medical personnel are on hand to address the problem. Our blood donor programs are also set up to make the process as easy and efficient as possible. These are all assumptions that do not necessarily apply in Africa. Administrators of safe blood programs in Africa need to give attention to ensuring that

competent, polite medical personnel draw blood from donors in a sanitary, welcome environment, and that any necessary follow-up is provided immediately and within close proximity to the donor station. Such services also need to be consistent, since a volunteer blood donor station relies on its reputation to retain current donors and to attract additional ones.

Finally, I would emphasize the need for national policies and training to reduce the number of unnecessary transfusions. Several studies of African health care facilities in the 1990s indicate that between 13-47 per cent of all pediatric transfusions are unnecessary. According to one study in Kenya, almost half of pediatric transfusions could have been avoided if prescribing practices had followed standard transfusion guidelines. Such guidelines and policies are readily available, for example from international health organizations. Transfusions could also be reduced significantly if increased attention and resources were directed to preventing maternal hemorrhaging and reducing the overall prevalence of malaria. Yet only half of the PEPFAR focus countries report having national guidelines that govern the clinical use of blood.

I would therefore encourage U.S. agencies and organizations involved in blood safety to focus on these fundamental and essential elements that can be implemented now and at relatively little cost. Thank you once again, Mr. Chairman and Members of the subcommittee, for focusing attention on safe blood in Africa and particularly on means to prevent the transmission of HIV through blood transfusions.